Reuse Working Group
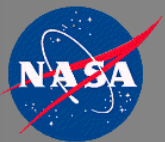# Breakouts #1 & 3 – Packaging/Distributing Assets

8th Earth Science Data Systems Working Group Meeting

Wilmington, Delaware

October 20–22, 2009

Information to Place Outside the Package

Initial suggestions from members of the WG

These have not been fully vetted.

- Name – the name of the asset/package.
- Description – a description of the asset, its purpose, and any subject matters or areas of interest to which the asset may be applicable.
- Version Number or Other Designation – a character string specifying the version of the asset.
- Author(s) – a list of authors, their affiliations, and contact details.
- Point of contact and contact information – a person and their contact information responsible for handling issues related to the asset and the Reuse Enablement System. This is not to be considered a support contact.
- Related websites – any websites that may be related to the asset, e.g. a project or mission website.
- Support provided – a description of the support provided for users of the asset.   If support is provided, information for utilizing that support should be included, e.g. email address, website of forums, etc.
- Requirements and dependencies – the system requirements (if any) needed to use the asset. This may include the operating system, compile requirements, library dependencies, or other programs.
- Table of contents – a simple listing of all of the files contained in the package.
- Checksum – the MD5 hash of the package. This assures the package is the same as the package originally made available from the developer.
- Languages Used – In the case of source code asset, a list of computer languages used. Irrelevant in the case of compiled binary assets.
- License(s) – the license(s) under which the asset is being distributed.
- Type of asset – describes the type of the asset, e.g. compiled executable, source code, image)
- Date of release / creation – the date of release or creation of the asset.
- Reuse readiness levels – A listing of the reuse readiness level of the asset in each of the RRL topics as well as the overall RRL.
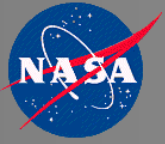
- Particularly useful manuals and other documentation
- Scholarly articles related to the asset
- Data (data tables, lookup tables) unique to the asset that may be useful on its own
- Data created by asset that may be useful to users (default data product). May be considered a separate asset?

- Previously noted list is very comprehensive, and perhaps not all of this information needs to go outside a package.

- Also noted that information outside the package can also be included inside the package.

- Where to go from here?

Minimum Requirements for Hosting Assets

Initial suggestions from members of the WG

These have not been fully vetted.
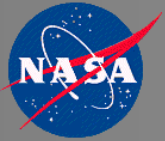
- Package to be hosted should be at RRL 5 or greater, but without minimums on software capabilities. Below that, it may not be very useful or worth the effort to host.

- Providers should complete a questionnaire about their package, to provide a common set of metadata describing each package, which will facilitate searching the holdings.

- The package should be a tar file readily uploadable or easily accessible by system hardware, with limits on total package size and/or number of tar files per package as needed by hardware.

- Note: There is no need to be very strict on any of these requirements, and personal judgment on a package-by-package basis may lead to easing someone's future software problems.

Suggested Questionnaire Items

- A brief description of the software
- The language it is written in
- The operating system (or environment) it was developed on or that it is known to run
- An inventory list of the delivery package
- Contact information
- Known bugs or restrictions
- A list of keywords describing the package
- Restrictions in using the code
- Amount of standards compliance
- Audience that might be interested in this package

- An inventory list of what is contained in the package
- At least one file with instructions on building and running the software, with instructions comparable to the complexity of the software
- Instructions on porting the software, if applicable
- The software
- Test data
- Expected output data from the software
- Instructions on configuring the software
- Instructions on extending the software capabilities

- Optionally, troubleshooting guides, FAQs, links to a user community, and tutorials, etc.

- Questionnaire idea approximately matches suggestions for information to include outside package.
- Where to go from here?

Organizational Release Process

- WG members are providing some information about organizational software release processes with which they are familiar.
- Currently have some information related to:
  - NASA Goddard
  - NASA Ames
  - ORNL (DOE)
  - Reusable NASA Images (funded by ESIP and NASA ACCESS)
  - ICESat SIPS (NASA)
  - HDF5 Maintenance Releases (The HDF Group)
- Information collected so far seems to cover both external and internal release processes.
- **We are still collecting process information and ask you to provide us information or links to other processes.**

- How does the organizational release process inform packaging and distribution?
- A comparative analysis of process information is planned, to look for common points that can serve as a guideline for the community.
  - Should this focus on internal or external releases?
  - Should we cover both (in two guidelines)?
  - Where can we get more information to include in the analysis?
- Where to go from here?

Backup Slides